

# PATENT ABSTRACTS OF JAPAN

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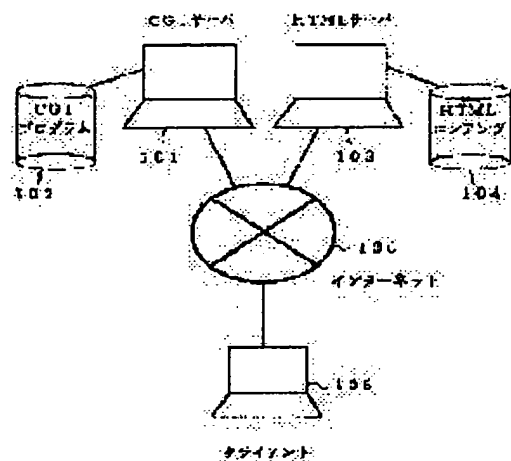
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## (54) DISTRIBUTED ACCESS SYSTEM TO WWW SERVER

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To reduce traffic to a WWW server by distributedly arranging a server to distribute HTML contents and a server to process a server program like a CGI(common gateway interface) and to distribute a result.

**SOLUTION:** Distributed access system to the WWW server is constituted by providing a CGI server 101 to execute a program linked with the HTML contents, an auxiliary storage device 102 in which the program like the CGI connected with the CGI server 101 is stored, the HTML server 103 in which the HTML contents are arranged, an auxiliary storage device 104 connected with the HTML server 103, in which the HTML contents is stored, a WWW client 105 and the Internet 106 to connect them. Script to make access to the program on the CGI server 101 is described in an HTML description file of the HTML contents and a processing is executed by making access to the server 101 based on input of the HTML contents received from the server 103 by the client 105.



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**DETAILED DESCRIPTION**

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**[Detailed Description of the Invention]**

**[0001]**

[The technical field to which invention belongs] this invention relates to the HTML contents on the server in the case of accessing the homepage which used WWW (World Wide Web) on the Internet, arrangement, and the access method of server programs, such as CGI (Common Gateway Interface), is used for the server load distribution in the case of creating the contents which utilized server programs, such as much CGI, especially in large quantities, and relates to a suitable WWW server distribution access method.

**[0002]**

[Description of the Prior Art] Operation of general data communication using HTTP (Hyper Text Transfer Protocol) in WWW HTML contents are required of a WWW server from the HTML (Hyper Text Markup Language) contents perusal program called WWW browser of a client side. A WWW server transmits HTML contents to the demand from a client, the information which the client received the HTML contents transmitted from the WWW server, and was received by the WWW browser is operated orthopedically, and a display etc. is performed on a display.

**[0003]** However, the above-mentioned HTML contents are static information, unless the contents arranged at the WWW server are changed, the information transmitted to a client does not change and bidirectional data communication is impossible for them.

**[0004]** The realization method is learned in the interactive data communication between a server and a client by arranging programs, such as CGI, on a WWW server and operating this program on a server to the contents demand from a client as conventional technology for solving such a trouble. moreover, recent years and Java etc. -- the technology of making the WWW browser of a client side transmitting and processing a program with technology is also standardized

**[0005]**

[Problem(s) to be Solved by the Invention] however, it has the trouble of the conventional technology mentioned above becoming applying a great load to a server when access concentrates on a WWW server, since programs, such as CGI, are also usually arranged at the WWW server by which HTML contents are arranged, and becoming the big factor which reduces the throughput of a WWW server

**[0006]** Moreover, it is performed briskly that the Internet user who does not hold a WWW server exhibits a homepage by borrowing the function and data storage area of a WWW server in recent years using WWW. In this case, when using a CGI program with HTML contents, it may be necessary to describe the program code depending on the WWW server to borrow. Furthermore, describing a program code itself and suitable skill will be required. This fact produces the trouble of making it very difficult to create a homepage which the scarce person of especially computer knowledge mentions above, and means \*\*.

**[0007]** the purpose of this invention solved the trouble of the conventional technology mentioned above, made it possible to distribute the server which processes server programs which distribute HTML contents, such as a server and CGI, and distributes a result, and made it possible to reduce the traffic to a WWW server -- it is in offering a WWW server distribution access method

**[0008]** Moreover, the purpose of this invention is to offer the WWW server distribution access method which enabled creation of the homepage which utilized server programs, such as CGI, easily, without creating a program completely describing a CGI script also by the difficult person.

**[0009]**

[Means for Solving the Problem] In the WWW server access method from the WWW client in the system by which according to this invention a WWW server and a WWW client are connected through a network, and the aforementioned purpose is constituted HTML contents and server programs, such as CGI, are arranged to a separate WWW server. It is attained by accessing the CGI program on the server by which server programs, such as CGI, are arranged based on the HTML contents which the aforementioned WWW client required HTML contents of the WWW server by which HTML contents are arranged, and received to it.

**[0010]** Moreover, the aforementioned purpose is attained by performing the program to the HTML description file of the aforementioned HTML contents, when the script for starting the CGI program on the WWW server by which server programs, such as CGI, are arranged describes and access to a CGI program is performed for the server by which server programs, such as Above CGI, are arranged again, and distributing a result to it at a WWW client.

**[0011]** In the above-mentioned, when the contents on a HTML server are accessed, a WWW client accesses the corresponding CGI server which exists in a CGI server other than a HTML server, and starts a program. A CGI server transmits a processing result to a WWW client, and a WWW client displays the information which was made to unite the HTML contents which

cooperate, and the information on a processing result, and was united on the display by the WWW browser.

[0012] this invention becomes possible [ distributing the server which processes server programs which distribute HTML contents, such as a server and CGI, and distributes a result by the above-mentioned ], and reduction of the traffic to a WWW server can be aimed at. Moreover, the creation of the homepage for which the difficult person also utilized server programs, such as CGI, easily of creating a program is attained by carrying out the centralized control of the programs, such as CGI, and offering them as various parts by the server.

[0013]

[Embodiments of the Invention] Hereafter, a drawing explains 1 operation gestalt of the WWW server distribution access method by this invention in detail.

[0014] The block diagram showing the composition of the WWW server distribution access method according [ drawing 1 ] to 1 operation gestalt of this invention and drawing 2 are the flow charts explaining operation of 1 operation gestalt of this invention. For a CGI server, and 102 and 104, as for a HTML server and 105, in drawing 1 , auxiliary memory and 103 are [ 101 / a WWW client and 106 ] the Internet.

[0015] The WWW server distribution access method by 1 operation gestalt of this invention The CGI server 101 by the WWW server computer which executes the program which cooperates with HTML contents, such as CGI, as shown in drawing 1 , The auxiliary memory 102 which stores programs, such as CGI connected to this CGI server 101 The HTML server 103 by the WWW server computer by which HTML contents have been arranged, The auxiliary memory 104 which stores the HTML contents connected to this HTML server 103, It is constituted by the network by the Internet 106 grade to which the WWW client 105 by the WWW client computer, and the CGI server 101, the HTML server 103 and the WWW client 105 are connected.

[0016] In addition, although [ drawing 1 ] the CGI server 101 and one HTML server 103 are connected at a time to a network, two or more these may be bases, respectively, and a large number are connected to a network and the WWW client 105 uses the CGI server 101 and the HTML server 103 in common.

[0017] Next, with reference to the flow shown in drawing 2 , operation of the operation gestalt of this invention through the Internet 106 of servers 101 and 103 and a WWW client is explained.

[0018] (1) If the WWW client 105 accesses the HTML server 103 and transmits the perusal demand of HTML contents, the HTML server 103 which received this through the Internet 106 will transmit the corresponding HTML contents which are stored in auxiliary memory 104 to the WWW client 105. In addition, the script for starting the CGI program on the CGI server 101 is described by the HTML description file of these HTML contents (Steps 201 and 202).

[0019] (2) The WWW client 105 receives the HTML contents which the HTML server 103 has transmitted, and analyzes a HTML description file (Steps 203 and 204).

[0020] (3) As a result of analyzing a HTML description file, the WWW client 105 ends processing, when not checked and described [ whether the script for starting the CGI program on a CGI server is described and ] (Step 205).

[0021] (4) When the script for starting the CGI program on a CGI server is described by the check of Step 205, access the WWW client 105 at the corresponding CGI server 101 (Step 206).

[0022] (5) The CGI server 101 which received access from a WWW client reads on memory the program stored in auxiliary memory 102, crowds for it and performs it, and transmits the processing result to the WWW client 105 after an execution end (Steps 207 and 208).

[0023] (6) The WWW client 105 receives the processing result from the CGI server 101, combines HTML contents and the processing result from the CGI server 101, and displays this information on a display (Steps 209-211).

[0024] According to the operation gestalt of this invention mentioned above, at least two servers connected to the Internet are prepared. The program which cooperates with HTML contents, such as CGI, to one server is arranged. By arranging HTML contents to the server of another side, and describing that a script accesses the program on a CGI server at a HTML description file It becomes possible to distribute the server which processes server programs which distribute HTML contents, such as a server and CGI, and distributes a result, and it becomes possible to reduce the traffic of a server.

[0025] Moreover, it becomes possible to create the homepage which utilized server programs, such as CGI, easily, without creating a program by carrying out the centralized control of the programs, such as CGI, and offering them as various parts by the server, completely describing a CGI script also by the difficult person according to the operation gestalt of this invention mentioned above.

[0026]

[Effect of the Invention] As explained above, it becomes possible to distribute the server which processes server programs which distribute HTML contents, such as a server and CGI, and distributes a result according to this invention, and the traffic of a WWW server is reduced and the thing of it can be carried out.

[0027] Moreover, according to this invention, the homepage which utilized server programs, such as CGI, easily can be created by carrying out the centralized control of the programs, such as CGI, and offering them as various parts by the server, without creating a program completely describing a CGI script also by the difficult person.

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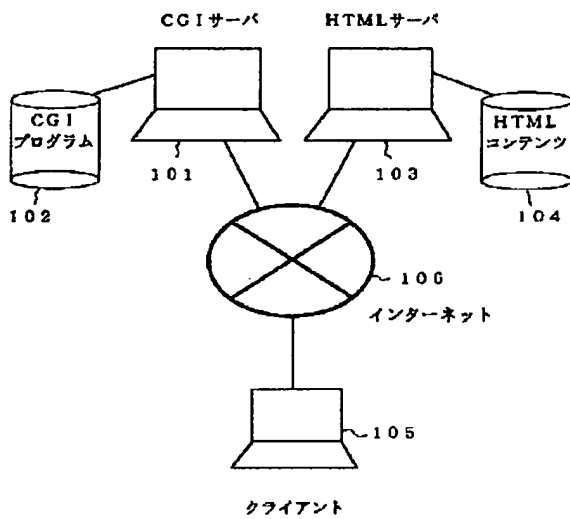
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DRAWINGS

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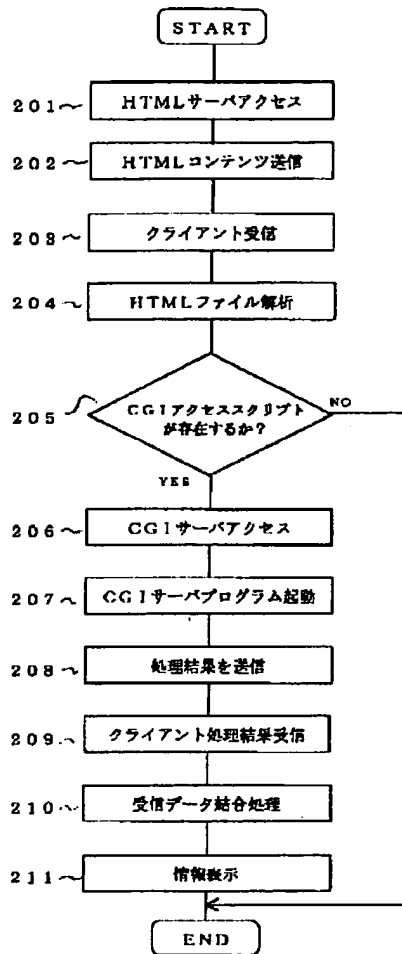
[Drawing 1]

図 1



[Drawing 2]

図 2



[Translation done.]